

CLAIMS

1. Method of increasing the effect of a cancer therapy, comprising the steps of:

5 delivering wild-type therapy-sensitizing gene activity to a tumor cell characterized by loss of said wild-type therapy-sensitizing gene activity, and
subjecting said tumor cell to said cancer therapy.

10 2. The method of claim 1, wherein a portion of a therapy-sensitizing protein with said therapy-sensitization gene activity is introduced into the tumor cell.

15 3. The method of claim 1, wherein a portion of a therapy-sensitizing gene or a portion of a cDNA encoding said therapy-sensitizing gene activity is introduced into the tumor cell.

20 4. The method of claim 1 wherein said cancer therapy is radiation therapy.

5. The method of claim 1 wherein said cancer therapy is chemotherapy.

25 6. The method of claim 1, wherein said cancer therapy is biological therapy.

30 7. The method of claim 1, wherein said cancer therapy is cryotherapy.

8. The method of claim 1, wherein said cancer therapy is hyperthermia.

35 9. The method of claim 1 wherein said tumor cell is selected from the group consisting of carcinoma cells, sarcoma cells, central nervous system tumor cells, melanoma

Sub A2
tumor cells, leukemia cells, lymphoma tumor cells,
hematopoietic tumor cells, ovarian carcinoma cells, osteogenic
sarcoma cells, lung carcinoma cells, colorectal carcinoma
cells, hepatocellular carcinoma cells, glioblastoma cells,
5 prostate cancer cells, breast cancer cells, bladder cancer
cells, kidney cancer cells, pancreatic cancer cells, gastric
cancer cells, esophageal cancer cells, anal cancer cells,
biliary cancer cells, urogenital cancer cells, and head and
neck cancer cells.

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Sub C3
10. The method of claim 3 wherein said portion of a
therapy-sensitizing gene or said portion of a cDNA is in a
vector.

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11. The method of claim 10, wherein said vector is
selected from the group consisting of adenovirus vector,
retroviral vector, adeno-associated virus vector, herpes virus
vector, vaccinia virus vector and papilloma virus vector.

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Sub C4
12. The method of claim 3, wherein said portion of
a therapy-sensitizing gene or said portion of a cDNA is
coupled to a virus capsid or particle.

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13. The method of claim 12, wherein said portion of
a therapy-sensitizing gene or said portion of a cDNA is
coupled to said capsid or particle through a polylysine
bridge.

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14. The method of claim 3, wherein said portion of
a therapy-sensitizing gene or said portion of a cDNA is
encapsulated in a liposome.

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15. The method of claim 3, wherein said portion of
a therapy-sensitizing gene or said portion of a cDNA is
conjugated to a ligand.

16. The method of claim 15, wherein said ligand is an asialoglycoprotein.

5 *Sub A3*
17. The method of claim 3, wherein said portion of a therapy-sensitizing gene or said portion of a cDNA is introduced to said tumor cell by direct injection or aerosolized preparation.

10 *Sub C5*
18. The method of claim 3, wherein said portion of a therapy-sensitizing gene or said portion of a cDNA is introduced to said tumor cell by intra-arterial infusion.

15 *Sub C5*
19. The method of claim 3, wherein said portion of a therapy-sensitizing gene or said portion of a cDNA is introduced to said tumor cell by intracavitary infusion.

20 *Sub C5*
20. The method of claim 3, wherein said portion of a therapy-sensitizing gene or said portion of a cDNA is introduced to said tumor cell by intravenous infusion.

25 *Sub G4*
21. The method of claim 1, wherein said therapy-sensitizing gene activity is fas therapy-sensitizing activity.

25 *Sub G5*
22. The method of claim 1, wherein said therapy-sensitizing gene activity is p53 therapy-sensitizing activity.